



Rehabilitation Aqueduct Baden (AT) Waterproofing Geomembrane

Country	Austria
Type	Potable water pipeline
Client	Stadt Wien/ Wiener Wasser
Main Contractor	Magistrat der Stadt Wien
Execution of the work	Renesco GmbH
Designer	Magistrat der Stadt Wien
Construction Period	2021

Project Description

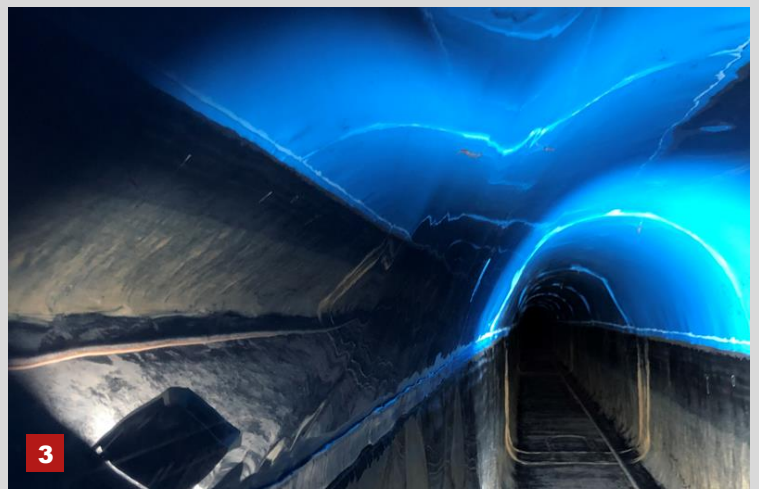
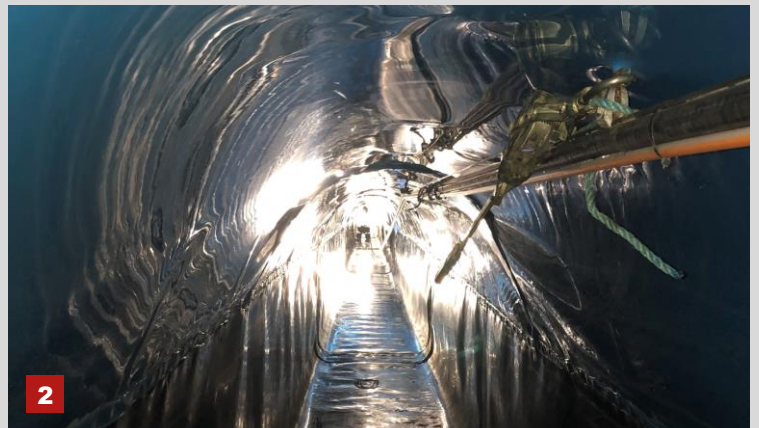
The aqueducts and canal bridges made of stone and exposed bricks were made during the construction of the first and second Viennese potable water transport pipelines up to 150 years ago. On an annual average, around 95% of Vienna's drinking water is supplied via the entire pipeline. In order to be able to guarantee the serviceability of the drinking water supply systems in the long term, the aged structure regarding its permeability in the stone and brick masonry must be repaired.

A plastic sealing system made of 2mm thick HDPE (High Density Polyethylene) sheet membrane according to OVGW (Austrian Association for Gas and Water) was used in the inner area of the transport line. This serves to protect the masonry of the century and to protect the drinking water quality for the customers of the city of Vienna.

Scope of Service

Structural waterproofing of the canal/ viaduct containing flowing potable water, sealed with a polyethylene (PE) waterproofing geomembrane/ geocomposite, fully exposed to the inside water face, and fixed via loose-flange stainless-steel construction/ termination to form watertight compartments.

- Induction roundels/ disc with an approximately distance of 50cm
- Extrusion welding, width of 4cm including copper wire for high voltage tests
- 600m² PE-geomembrane, 2mm thick, certified according OVGW (potable water)
- Connection to the old HDPE geomembrane system via extrusion seam
- Pipe penetration, DN 400
- Loose-steel flange termination/ clamping



1. Aqueduct
2. Inside of the viaduct
3. Geomembrane installation